

[CLAIMS]

1-26. (CANCELED).

27. (PREVIOUSLY PRESENTED) The method according to claim 45, wherein adherence of the coating to the first surface of the glass substrate is enhanced by an adhesion promoter included within the thermosetting powder.

28. (PREVIOUSLY PRESENTED) The method according to claim 45, wherein the first surface of the glass substrate is treated with an adhesion promoter prior to the step of depositing of the thermosetting powder on the first surface of the glass substrate.

29. (CANCELED).

30. (PREVIOUSLY PRESENTED) The method according to claim 45, wherein the source of infra-red radiation is mounted within a box having a reflective internal surface.

31. (PREVIOUSLY PRESENTED) The method according to claim 30, wherein the heat is transmitted to the glass substrate by conduction from the box, and to the thermosetting powder by the radiation through the substrate.

32. (PREVIOUSLY PRESENTED) The method according to claim 45, wherein the frequency of the infra-red radiation is regulated from a higher frequency to a lower frequency as the thermosetting powder progresses from melt to cure.

33. (CANCELED.)

34. (CURRENTLY AMENDED) The method according to claim [[33]] 51, wherein the distance that the metal foil extends inwardly from the edges of the coating across the back surface is approximately 125 mm. ←

35. (CURRENTLY AMENDED) The method according to claim [[33]] 51, wherein the metal foil has a thickness within a range 75 – 150 µm. ←

36. (PREVIOUSLY PRESENTED) The method according to claim 35, wherein the thickness is approximately 80 µm.

37. (PREVIOUSLY PRESENTED) The method according to claim 45, wherein two thermosetting powders are deposited, one after the other, on the first surface of the substrate for forming a first coating on the substrate and a second coating on the first coating, and heat to cure both of the two thermosetting powders into the first and the second coatings is applied by transmission through the substrate.

38. (CANCELED).

39. (CANCELED).

40. (PREVIOUSLY PRESENTED) A powder-coated glass product including a glass substrate exhibiting thermal-stress relief, wherein the glass substrate comprises

a back surface and a side surface, the back surface of the glass substrate being coated by a coating of a thermosetting powder and a metal foil is bonded to the coating of the thermosetting powder to relieve thermal stress in the glass substrate, the metal foil extending inwardly across the coating of the thermosetting powder from the side surface of the glass substrate, wherein the metal foil extends inwardly across the coating of the thermosetting powder from the side surface of the glass substrate by a distance within a range of 100 - 150 mm for reduction of thermal stress in the glass substrate, the distance by which the metal foil extends inwardly across the coating of the thermosetting powder from the side surface of the glass substrate is approximately 125 mm, the metal foil is further bonded to the side surface and a front surface of the glass substrate, the metal foil extending across the front surface of the glass substrate from the side surface of the glass substrate by a distance of 6 mm or less.

41. (CANCELED).

42. (PREVIOUSLY PRESENTED) The powder-coated glass product according to claim 40, wherein the metal foil has a thickness within a range 75 – 150 μm .

43. (PREVIOUSLY PRESENTED) The powder-coated glass product according to claim 42, wherein the thickness is approximately 80 μm .

44. (PREVIOUSLY PRESENTED) The powder-coated glass product according to claim 40, wherein the coating is an epoxy-resin coating.

45. (PREVIOUSLY PRESENTED) A method of manufacturing a powder-coated glass product with the product including a glass substrate having first and second surfaces, the method comprising:

a step of depositing thermosetting powder on the first surface of the glass substrate with the first surface uppermost of the first and the second surfaces of the glass substrate; and

a step of curing the thermosetting powder to form a coating on the first surface of the glass substrate, the step of curing the thermosetting powder comprising application of heat to the thermosetting powder from a source of infra-red radiation located below the second surface of the glass substrate, the source of infra-red radiation applying the infra-red radiation via the second surface of the glass substrate to heat the thermosetting powder, the application of heat to the thermosetting powder being partly by transmission of the heat conducted through the glass substrate from the second surface to the first surface of the glass substrate and partly by transmission of the infra-red radiation through the glass substrate to the thermosetting powder.

46. (PREVIOUSLY PRESENTED) The method according to claim 45, further including a preliminary step of heating the glass substrate, prior to the step of depositing

the thermosetting powder on the first surface of the glass substrate, with the preliminary step being carried out for adhesion of the thermosetting powder to the first surface of the glass substrate during the step of depositing the thermosetting powder on the first surface of the glass substrate.

47. (PREVIOUSLY PRESENTED) A glass panel manufactured by a method of manufacturing a powder-coated glass panel wherein the panel includes a glass substrate having first and second surfaces, and the method comprises:

a step of depositing thermosetting powder on the first surface of the glass substrate;

a step of curing the thermosetting powder to form a coating on the first surface of the glass substrate, the step of curing the thermosetting powder comprising application of heat to the thermosetting powder by transmission of the heat through the glass substrate from the second surface to the first surface of the glass substrate;

a step of bonding metal foil to the coating on the first surface of the glass substrate to form a thermal stress reducing first border; and

a step of bonding metal foil to the second surface of the glass substrate to form a second border, the first border having a greater width than a width of the second border.

48. (PREVIOUSLY PRESENTED) A glass spandrel panel having thermal-stress relief, the glass spandrel panel comprising a facing glass sheet and a glass substrate spaced parallel behind the facing sheet, wherein the glass substrate is backed by a thermosetting powder coating, and a metal foil is bonded to a back surface of the thermosetting powder coating to afford thermal-stress relief to the glass substrate, the metal foil extending inwardly across the back surface from edges of the coating, wherein the metal foil extends inwardly only partially across the back surface of the thermosetting powder coating from the edges by a distance of between 100 - 150 mm for reduction of thermal stress in the glass substrate, and the metal foil wraps over edges of the glass substrate and extends inwardly across the facing glass sheet from the edges of the glass substrate by a distance of 6 mm or less to provide a barrier to ingress of moisture between the facing glass sheet and the glass substrate.

49. (PREVIOUSLY PRESENTED) A method of manufacturing a powder-coated glass product, the product including a glass substrate having first and second surfaces, and the method comprising the steps of:

depositing thermosetting powder on the first surface of the glass substrate with the first surface uppermost of the first and the second surfaces of the glass substrate; and

curing the thermosetting powder deposited on the first surface by application of heat to the deposited thermosetting powder to form a coating on the first surface of the glass substrate,

the application of the heat to the thermosetting powder being from a source of infra-red radiation located below the second surface of the glass substrate to apply the infra-red radiation to the second surface, the source of infra-red radiation comprising a box having a borosilicate glass lid and at least one infra-red lamp within the box for emitting the infra-red radiation through the glass lid for transmission of the infra-red radiation through the glass substrate from the second surface to the thermosetting powder deposited on the first surface of the glass substrate, the transmission of the infra-red radiation through the glass substrate to the thermosetting powder deposited on the first surface fusing the thermosetting powder progressively upwards within the thermosetting powder from the first surface to cure the thermosetting powder.

50. (CURRENTLY AMENDED) A method of manufacturing a powder-coated glass product with the product including a glass substrate having an upper surface and a lower surface, and the method comprising:

a step of depositing thermosetting powder on the upper surface of the glass substrate; and

a step ~~carried out within an oven~~ of curing, within an oven, the thermosetting powder deposited on the upper surface to form a coating on the upper surface of the glass substrate, the step of curing the thermosetting powder comprising application of heat to the thermosetting powder from a source of infra-red radiation located within the oven under the lower surface of the glass substrate, the source of infra-red radiation applying the infra-red radiation via the lower surface of the glass substrate to heat the thermosetting powder, the application of heat to the thermosetting powder being by transmission of the infra-red radiation through the glass substrate from the lower surface to the upper surface of the glass substrate while maintaining an environment of near-ambient temperature above the glass substrate within the oven. ←

51. (NEW) A method of manufacturing a power-coated glass product with the product including a glass substrate having first and second surfaces, the method comprising:

a step of depositing thermosetting powder on the first surface of the glass substrate with the first surface being an uppermost of the first and the second surfaces of the glass substrate; and

a step of curing the thermosetting powder to form a coating on the first surface of the glass substrate, the step of curing the thermosetting powder comprising application of heat to the thermosetting powder from a source of infra-red radiation located below the second surface of the glass substrate, the source of infra-red radiation applying the infra-red radiation, via the second surface of the glass substrate, for heating the thermosetting powder, the application of heat to the thermosetting powder being partly by transmission of the heat conducted through the glass substrate from the second surface to the first surface of the glass substrate and partly by transmission of the infra-red radiation through the glass substrate to the thermosetting powder; and

bonding a metal foil to a back surface of the coating for reduction of the thermal stress in the glass substrate, the metal foil extending inwardly from edges of the coating across the back surface by a distance within a range of 100-150 mm and being bonded to the second surface of the glass substrate, and the metal foil extending inwardly from edges of the glass substrate across the second surface of the glass substrate by a distance of 6 mm or less.

52. (NEW) A method of manufacturing a powder-coated glass product with the product including a glass substrate having first and second surfaces, the method comprising:

a step of depositing two thermosetting powders on the first surface of the glass substrate with the first surface being an uppermost surface of the first and the second surfaces of the glass substrate;

a step of curing the two thermosetting powders to form a coating on the first surface of the glass substrate, the step of curing the thermosetting powder comprising application of heat to the two thermosetting powders from a source of infra-red radiation located below the second surface of the glass substrate, the source of infra-red radiation applying the infra-red radiation, via the second surface of the glass substrate, to heat the thermosetting powder, and the application of heat to the thermosetting powder being partly by transmission of the heat conducted through the glass substrate from the second surface to the first surface of the glass substrate and partly by transmission of the infra-red radiation through the glass substrate to the thermosetting powder;

the step of depositing the two thermosetting powders further comprises the step of depositing the two thermosetting powders, one after the other, on the first surface of the substrate for forming a first coating on the substrate and a second coating on the first coating, and applying heat to cure both of the two thermosetting

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powders into the first and the second coatings by transmission through the substrate;
and

bonding a metal foil to a back surface of the second coating for reduction of thermal stress in the glass substrate, the metal foil extending inwardly from edges of the second coating across its back surface by a distance within a range 100 - 150 mm.